

**Appendix G**

**Groundwater Data**

**From**

**USGS-12 and NRF-7**

## **Table 1**

**Metal Concentrations – 1989 to Present**

**Aluminum to Copper**

B = Compound is also detected in the blank. J = Result is detected below the reporting limit or is an estimated concentration.  
Q = The reporting limit was elevated due to high analyte levels. W = Post digestion spike recovery fall between 40-85% due to matrix interference. S = Sample diluted due to the concentration of target analytes.  
U = The MDL was raised to accommodate the detection of constituents in blank.  
D = Results were the result of a dilution. < = Less than Reporting Limit

Appendix G - Table 1 - Metals Data from USGS-12 and NRF-7 1989 to Present

Well Number	Date Sampled	pH	Specific Conduct (µS/cm)										Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper
NRF-7	09/10/91	8.50	257										400							
NRF-7	01/08/92	8.46	232													100			10.0	
NRF-7	03/10/92	8.50	232																9.0	
NRF-7	05/14/92	8.42	240																	
NRF-7	07/08/92	8.72	255																8.0	
NRF-7	09/18/92	8.50	244																1.0	
NRF-7	12/09/92	8.32	243																5.0	
NRF-7	04/09/93	8.26	243																11.0	
NRF-7	06/10/93	8.37	245																13.0	
NRF-7	09/14/93	8.11	254																11.0	
NRF-7	11/03/93	8.07	257																10.0	
NRF-7	03/15/94	8.10	243																12.0	
NRF-7	06/13/94	8.14	240																10.0	
NRF-7	09/12/94	8.30	250																27.0	
NRF-7	11/04/94	8.30	254																12.0	
NRF-7	03/17/95	8.11	238																13.0	
NRF-7	06/09/95	8.21	243																12.0	
NRF-7	09/14/95	8.47	248																14.0	
NRF-7	11/08/95	8.27	259																13.0	
NRF-7	01/16/96	7.98	248																14.0	
NRF-7	03/19/96	8.15	249																14.0	
NRF-7	06/10/96	8.34	250																15.0	
NRF-7	09/03/96	8.51	236																15.0	
NRF-7	01/31/97	8.55	210																13.0	
NRF-7	06/05/97	8.15	238																12.0	
NRF-7	09/02/97	8.46	240																9.7	
NRF-7	11/18/97	8.41	236																10.0	
NRF-7	02/09/98	8.21	255																10.0	
NRF-7	05/11/98	8.25	265																9.6	
NRF-7	08/05/98	8.50	240																11.0	
NRF-7	11/02/98	8.28	258																11.0	
NRF-7	02/04/99	8.16	261																10.1	
NRF-7	05/03/99	8.44	255																8.5	
NRF-7	07/27/99	8.05	262																11.0	
NRF-7	11/01/99	8.12	261																13.0	
USGS-12	06/15/90	7.80	550																8.0	
USGS-12	08/06/90	7.90	595																9.0	
USGS-12	10/10/90	7.80	545																8.0	
USGS-12	12/11/90	7.90	552																7.0	
USGS-12	02/07/91	7.80	600																7.0	
USGS-12	04/11/91	7.80	560																7.0	
USGS-12	06/10/91	7.80	575																4.0	
USGS-12	09/06/91	7.90	590																7.0	
USGS-12	12/05/91	7.90	575																6.0	
USGS-12	03/12/92	7.84	610																7.0	
USGS-12	06/19/92	7.93	580																5.0	
USGS-12	09/18/92	8.01	560																9.0	
USGS-12	12/01/92	7.89	560																10.0	
USGS-12	04/13/93	7.83	582																5.0	

Appendix G - Table 1 - Metals Data from USGS-12 and NRF-7 1989 to Present

Well Number	Date Sampled	pH	Specific Conduct (uS/cm)	Aluminum	Antimony	Arsenic	Berium	Beryllium	Cadmium	Chromium	Copper
USGS-12	06/14/93	7.92	600							5.0	
USGS-12	09/16/93	7.76	580							6.0	
USGS-12	11/05/93	7.80	590							5.0	
USGS-12	03/11/94	7.73	606							7.3	
USGS-12	06/10/94	7.80	605							8.0	
USGS-12	09/09/94	7.92	600							7.3	
USGS-12	10/27/94	7.84	600							7.3	
USGS-12	03/20/95	7.76	604	< 10	< 1.0	2.0	100	< 10.0	< 1.0	6.7	< 1.0
USGS-12	06/14/95	7.83	602	50	< 1.0	2.0	100	< 10.0	< 1.0	7.0	1.0
USGS-12	09/12/95	7.88	598	< 10	< 1.0	2.0	100	< 10.0	< 1.0	6.5	< 1.0
USGS-12	11/02/95	7.86	605	< 10	< 1.0	2.0	100	< 10.0	< 1.0	7.2	< 1.0
USGS-12	01/16/96	7.47	606	< 10	< 1.0	2.0	100	< 10.0	< 1.0	6.5	< 1.0
USGS-12	03/21/96	7.70	597	< 10	< 1.0	2.0	100	< 10.0	< 1.0	6.9	< 1.0
USGS-12	06/10/96	7.94	607	< 10	< 1.0	2.0	100	< 10.0	< 1.0	7.8	< 1.0
USGS-12	09/03/96	7.96	595	< 10	< 1.0	2.0	100	< 10.0	< 1.0	6.8	< 1.0
USGS-12	02/04/97	7.85	560	< 10	< 1.0	2.0	100	< 10.0	< 1.0	10.0	< 10.0
USGS-12	06/09/97	7.81	526	< 100	< 0.5	1.5	130	< 0.5	< 0.3	4.9	< 2.0
USGS-12	09/03/97	7.88	528	< 100	< 0.5	< 5.0	140	< 0.5	< 0.3	5.3	< 2.0
USGS-12	11/18/97	7.79	405	< 100	< 0.5	1.6	130	< 0.5	0.0	5.8	1.9
USGS-12	02/11/98	7.74	544	< 100	< 0.5	J	130	< 0.5	J	5.7	3.1
USGS-12	05/12/98	7.98	528	< 100	< 0.5	J	140	< 0.5	< 0.3	6.2	< 2.0
USGS-12	08/04/98	7.93	518	< 100	< 0.5	J	136	< 0.5	< 0.3	5.9	< 2.0
USGS-12	11/04/98	7.87	507	< 100	< 0.5	J	130	< 0.5	< 0.3	6.3	1.7
USGS-12	02/11/99	7.99	491	< 100	< 0.5	J	123	< 0.5	< 0.3	5.1	< 2.0
USGS-12	05/05/99	7.76	478	J	< 0.5	< 5.0	130	< 0.5	< 0.3	5.7	< 2.0
USGS-12	07/29/99	7.80	472	J	< 0.5	< 5.0	130	< 0.5	< 0.3	6.5	< 2.0
USGS-12	11/03/99	7.93	470	J	< 0.5	< 5.0	130	< 0.5	< 0.3	6.4	< 2.0
	Mean	8.06	417.08	99.69	0.71	2.56	99.59	3.52	0.62	8.82	3.77
	Std. Dev.	0.27	162.26	105.33	0.28	1.44	31.51	4.47	0.38	3.69	9.92
	Max	8.72	610.00	560.00	1.10	5.80	200.00	10.00	1.00	27.00	67.00
	Min	7.47	210.00	10.00	0.17	1.00	51.00	0.50	0.02	1.00	1.00

## **Table 2**

**Metal Concentrations – 1989 to Present**

**Iron to Zinc**

B = Compound is also detected in the blank.  
Q = The reporting limit was elevated due to high analyte levels  
U = The MDL was raised to accommodate the detection of constituents in blank

J = Result is detected below the reporting limit or is an estimated concentration.  
Wa = Post digestion spike recovery fell between 40-85% due to matrix interference  
D = Results were the result of a dilution

s = Sample diluted due to the concentration of target analytes.  
D = Results were the result of a dilution

Appendix G - Table 2 - Metals Data from USGS-12 and NRF-7 1989 to Present

Well Number	Date Sampled	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
NRF-7	09/10/91	670	1.0	20.0	< 0.1	9.0	1.0	< 1.0		10.0
NRF-7	01/08/92	330	4.0		< 0.1	4.0		< 1.0		
NRF-7	03/10/92									
NRF-7	05/14/92	620	1.0		< 0.1	5.0		< 1.0		
NRF-7	07/08/92	3900	1.0		< 0.1	3.0		< 1.0		
NRF-7	09/18/92	180	1.0		< 0.1	1.0		< 1.0		
NRF-7	12/09/92	210	< 1.0		< 0.1	8.0		< 1.0		
NRF-7	04/09/93	330	1.0		< 0.1	5.0		< 1.0		
NRF-7	06/10/93	600	1.0		< 0.1	6.0		< 1.0		
NRF-7	09/14/93	180	1.0		< 0.1	4.0		< 1.0		
NRF-7	11/03/93	330	1.0		< 0.1	4.0		< 1.0		
NRF-7	03/15/94	280	1.0		< 0.1	4.0		< 1.0		
NRF-7	06/13/94	4800	1.0		< 0.1	1.0		< 1.0		
NRF-7	09/12/94	550	1.0		< 0.1	7.0		< 1.0		
NRF-7	11/04/94	210	1.0		< 0.1	4.0		< 1.0		
NRF-7	03/17/95	110	< 1.0	< 10.0	< 0.1	3.0	1.0	< 1.0		< 10.0
NRF-7	06/09/95	1100	< 1.0	< 10.0	< 0.1	5.0	1.0	< 1.0	< 0.5	< 10.0
NRF-7	09/14/95	110	< 1.0	< 10.0	< 0.1	4.0	1.0	< 1.0	< 0.5	< 10.0
NRF-7	11/08/95	690	< 1.0	< 20.0	< 0.1	6.0	1.0	< 1.0	< 0.5	< 10.0
NRF-7	01/16/96	180	1.0	< 10.0	< 0.1	6.0	5.0	< 1.0	< 0.5	< 10.0
NRF-7	03/19/96	160	1.0	< 10.0	< 0.1	6.0	1.0	< 1.0	< 0.5	< 10.0
NRF-7	06/10/96	70	1.0	< 10.0	< 0.1	6.0	< 1.0	< 1.0	< 0.5	< 10.0
NRF-7	09/03/96	230	1.0	< 10.0	< 0.1	6.0	1.0	< 1.0	< 0.5	< 10.0
NRF-7	01/31/97	340	< 50.0	9.0		< 10.0	< 1.0			< 20.0
NRF-7	06/05/97	540	1.3	7.6	< 0.2	6.3	0.9	< 0.5	< 0.3	< 13.0
NRF-7	09/02/97	93	< 1.0	3.6	< 0.2	5.2	1.6	< 0.5	< 0.1	5.1
NRF-7	11/18/97	1800	1.3	24.0	J 0.1	8.2	1.2	< 0.3	< 0.0	120.0
NRF-7	02/09/98	100	J 0.5	3	UGJ 0.1	7.7	J 1.4	< 0.5	< 0.1	UGJ 17.0
NRF-7	05/11/98	J 80	J 0.4	J 5.5	< 0.2	6.5	J 1.5	< 0.2	< 0.1	J 24.0
NRF-7	08/05/98	< 100	< 1.0	< 10.0	< 0.2	< 10.0	< 5.0	< 0.5	< 0.1	< 20.0
NRF-7	11/02/98	130	< 1.0	3.6	< 0.2	5.7	J 1.4	< 0.5	< 0.1	J 5.5
NRF-7	02/04/99	101	< 1.0	J 3.3	< 0.2	< 10.0	< 5.0	< 0.5	< 0.1	< 20.0
NRF-7	05/03/99	270	< 1.0	J 5.4	< 0.2	J 9.5	< 5.0	< 0.5	< 0.1	< 37.0
NRF-7	07/27/99	310	< 1.0	10.0	J 0.1	J 9.3	< 5.0	< 0.5	< 0.1	J 9.0
NRF-7	11/01/99	700	3.5	24.0	< 0.2	J 11.0	< 5.0	< 0.5	< 0.1	J 11.0
USGS-12	06/15/90	30	1.0	< 10.0	< 0.1	1.0	2.0	< 1.0		< 10.0
USGS-12	08/06/90	10	< 1.0	< 10.0	< 0.1	1.0	1.0	< 1.0		< 10.0
USGS-12	10/10/90	40	1.0	< 10.0	< 0.1	1.0	1.0	< 1.0		< 10.0
USGS-12	12/11/90	140	1.0	< 10.0	< 0.1	1.0	1.0	< 1.0		< 10.0
USGS-12	02/07/91	60	1.0	< 10.0	< 0.1	1.0	2.0	< 1.0		< 10.0
USGS-12	04/11/91	140		< 10.0	< 0.1		3.0	< 1.0		< 10.0
USGS-12	06/10/91	120	1.0		< 0.1	1.0		< 1.0		
USGS-12	09/06/91	50	< 1.0		< 0.1	1.0		< 1.0		
USGS-12	12/05/91	70	< 1.0		< 0.1	1.0		< 1.0		
USGS-12	03/12/92	20	1.0		< 0.1	1.0		< 1.0		
USGS-12	06/19/92	50	1.0		< 0.1	1.0		< 1.0		
USGS-12	09/18/92	260	1.0		< 0.1	6.0		< 1.0		
USGS-12	12/01/92	3000	< 1.0		< 0.1	7.0		< 1.0		



Appendix G - Table 2 - Metals Data from USGS-12 and NRF-7 1989 to Present

Well	Date	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
USGS-12	04/13/93	40	1.0		< 0.1	1.0		< 1.0		
USGS-12	06/14/93	40	1.0		< 0.1	1.0		< 1.0		
USGS-12	09/16/93	40	1.0		< 0.1	1.0		< 1.0		
USGS-12	11/05/93	140	1.0		< 0.1	2.0		< 1.0		
USGS-12	03/11/94	1300	1.0		< 0.1	1.0		< 1.0		
USGS-12	06/10/94	200	1.0		< 0.1	1.0		< 1.0		
USGS-12	09/09/94	190	1.0		< 0.1	1.0		< 1.0		
USGS-12	10/27/94	20	1.0		< 0.1	4.0		< 1.0		
USGS-12	03/20/95	330	< 1.0	< 10.0	< 0.1	< 1.0	2.0	< 1.0	< 0.5	< 10.0
USGS-12	06/14/95	60	< 1.0	< 10.0	< 0.1	< 1.0	2.0	< 1.0	< 0.5	< 80.0
USGS-12	09/12/95	600	< 1.0	< 10.0	< 0.1	< 1.0	2.0	< 1.0	< 0.5	< 10.0
USGS-12	11/02/95	60	< 1.0	20.0	< 0.1	< 1.0	2.0	< 1.0	< 0.5	< 10.0
USGS-12	01/16/96	30	1.0	< 10.0	< 0.1	< 1.0	2.0	< 1.0	< 0.5	< 10.0
USGS-12	03/21/96	50	1.0	< 10.0	< 0.1	< 1.0	2.0	< 1.0	< 0.5	< 10.0
USGS-12	06/10/96	30	1.0	< 10.0	< 0.1	< 1.0	2.0	< 1.0	< 0.5	< 10.0
USGS-12	09/03/96	50	1.0	< 10.0	< 0.1	< 1.0	2.0	< 1.0	< 0.5	< 10.0
USGS-12	02/04/97	830	< 50.0	14.0		10.0	2.0			< 20.0
USGS-12	06/09/97	59	< 1.0	1.3	< 0.2	2.8	1.8	< 0.5	< 0.3	7.2
USGS-12	09/03/97	42	< 1.0	1.6	< 0.2	2.4	< 5.0	< 0.5	< 0.3	< 10.0
USGS-12	11/18/97	30	0.3	1.7	< 0.2	3.4	2.0	< 0.5	< 0.0	19.0
USGS-12	02/11/98	32	0.5	2.5	UBJ	4.2	2.5	< 0.5	< 0.1	UB
USGS-12	05/12/98	< 100	< 1.0	1.3	< 0.2	0.5	2.5	< 0.5	< 0.1	9.3
USGS-12	08/04/98	< 100	< 1.0	< 10.0	< 0.2	< 10.0	< 5.0	< 0.5	< 0.1	< 10.0
USGS-12	11/04/98	< 100	< 1.0	0.8	0.2	0.8	2.5	< 0.5	< 0.1	6.0
USGS-12	02/11/99	< 100	< 1.0	< 10.0	< 0.2	< 10.0	< 5.0	< 0.5	< 0.1	< 20.0
USGS-12	05/05/99	86	< 1.0	< 10.0	< 0.2	< 10.0	< 5.0	< 0.5	< 0.1	2.9
USGS-12	07/29/99	85	1.5	< 10.0	< 0.2	< 10.0	4.2	< 0.5	< 0.1	< 20.0
USGS-12	11/03/99	77	2.7	1.7	< 0.2	< 10.0	< 5.0	< 0.5	< 0.1	< 10.0
Mean		389.40	2.41	9.25	0.13	4.35	2.46	0.84	0.27	16.09
Std. Dev.		799.39	8.00	5.51	0.04	3.36	1.55	0.24	0.20	19.30
Max		4800.00	50.00	24.00	0.20	11.00	5.00	1.00	0.50	120.00
Min		10.00	0.33	0.75	0.08	0.46	0.94	0.20	0.01	2.90

## **Table 3**

### **Salt Concentrations – 1989 to Present**



B = Compound is also detected in the blank. J = Result is detected below the reporting limit or is an estimated concentration.  
Q = The reporting limit was elevated due to high analyte levels Wa = Post digestion spike recovery fell between 40-85% due to matrix interference D = Results were the result of a dilution  
U = The MDL was raised to accommodate the detection of constituents in blank < = Less than Reporting Limit s = Sample diluted due to the concentration of target analytes.

## Appendix G - Table 3 - Salt Data from USGS-12 and NRF-7 1989 to Present

Well Number	Date Sampled	Calcium	Potassium	Magnesium	Sodium	Chloride	Sulfate
NRF-7	09/10/91	30000	2800	9000	9300	6700	14000
NRF-7	01/08/92				8100	6500	19000
NRF-7	03/10/92				7000	6500	17000
NRF-7	05/14/92				8700	5100	15000
NRF-7	07/08/92				8900	5100	16000
NRF-7	09/18/92				11000		35000
NRF-7	12/09/92				8400	5500	16000
NRF-7	04/09/93				8100	5400	15000
NRF-7	06/10/93				7800	5500	15000
NRF-7	09/14/93				8500	5000	15000
NRF-7	11/03/93				8700	4800	15000
NRF-7	03/15/94				8100	5000	14000
NRF-7	06/13/94				8300	4900	14000
NRF-7	09/12/94				8600	5200	14000
NRF-7	11/04/94				8000	4900	14000
NRF-7	03/17/95				4500	5300	13000
NRF-7	06/09/95				9300	4800	13000
NRF-7	09/14/95				9000	4900	13000
NRF-7	11/08/95				8600	4900	13000
NRF-7	01/16/96	25000	2900	8800	9100	4600	13000
NRF-7	03/19/96	25000	2800	8900	8900	5000	14000
NRF-7	06/10/96	25000	2800	9300	8700	5100	13000
NRF-7	09/03/96	24000	2800	9000	9500	5200	14000
NRF-7	01/31/97	21000	3000	8300	9000	5400	15000
NRF-7	06/05/97	26900	2900	8900	9100	4700	13500
NRF-7	09/02/97	26600	2900	9100	8300	4600	13700
NRF-7	11/18/97	27200	3300	9500	9500	4000	13800
NRF-7	02/09/98	28700	J 3300	9600	9000	4500	13400
NRF-7	05/11/98	31500	J 3300	9500	9700	4300	13600
NRF-7	08/05/98	24100	J 2720	9390	8270	4800	13900
NRF-7	11/02/98	30400	J 2800	9400	9400	4900	13100
NRF-7	02/04/99	27100	J 3020	9480	8730	5100	13200
NRF-7	05/03/99	27700	J 3200	9700	9500	5300	13300
NRF-7	07/27/99	30000	J 2900	9800	8200	5300	14000
NRF-7	11/01/99	28300	J 3000	9800	8900	5800	14200
USGS-12	06/15/90	64000	1900	20000	13000	31000	32000
USGS-12	08/06/90				10000	32000	32000
USGS-12	10/10/90				12000	32000	33000
USGS-12	12/11/90				12000	35000	35000
USGS-12	02/07/91				12000	34000	35000
USGS-12	04/11/91				13000	33000	37000
USGS-12	06/10/91				13000	31000	26000
USGS-12	09/06/91				13000	29000	29000
USGS-12	12/05/91				12000	36000	36000
USGS-12	03/12/92				14000	40000	38000
USGS-12	06/19/92				15000	40000	35000
USGS-12	09/18/92				8500	6300	15000
USGS-12	12/01/92				7700	7100	19000
USGS-12	04/13/93				14000	37000	36000
USGS-12	06/14/93				13000	38000	37000
USGS-12	09/16/93				15000	36000	38000
USGS-12	11/05/93				16000	37000	35000
USGS-12	03/11/94				15000	38000	37000
USGS-12	06/10/94				15000	21000	26000
USGS-12	09/09/94				15000	38000	36000
USGS-12	10/27/94				16000	39000	35000
USGS-12	03/20/95				13000	42000	35000
USGS-12	06/14/95				17000	38000	35000
USGS-12	09/12/95				17000	39000	36000
USGS-12	11/02/95				17000	40000	34000
USGS-12	01/16/96	70000	2100	24000	17000	36000	34000
USGS-12	03/21/96	77000	2100	23000	16000	40000	36000
USGS-12	06/10/96	66000	2000	24000	16000	38000	34000
USGS-12	09/03/96	68000	1900	23000	17000	38000	35000
USGS-12	02/04/97	65000	2000	21000	17000	39000	36000

**Appendix G - Table 3 - Salt Data from USGS-12 and NRF-7 1989 to Present**

Well	Date	Calcium	Potassium	Magnesium	Sodium	Chloride	Sulfate
USGS-12	06/09/97	70900	2200	22700	17700	36300	35400
USGS-12	09/03/97	67800	2000	22600	16700	32000	32100
USGS-12	11/18/97	66200	2200	20900	16500	29500	31500
USGS-12	02/11/98	66100	2300	21000	16400	28200	30100
USGS-12	05/12/98	65100	2100	19700	16100	25000	28400
USGS-12	08/04/98	59000	1830	19400	15200	24200	28200
USGS-12	11/04/98	57400	1800	18600	14500	19600	25000
USGS-12	02/11/99	56000	1940	17700	13300	17400	24300
USGS-12	05/05/99	58700	2200	18600	13400	17300	23200
USGS-12	07/29/99	57500	1700	18400	13300	14900	23900
USGS-12	11/03/99	57300	1800	18600	13100	15800	24000
	Mean	45602.94	2485.59	15019.71	11711.84	19429.33	23971.05
	Std. Dev.	19438.68	520.90	6030.75	3391.06	14817.77	9750.62
	Max	77000.00	3300.00	24000.00	17700.00	42000.00	38000.00
	Min	21000.00	1700.00	8300.00	4500.00	4000.00	13000.00

## **Table 4**

### **Nutrient Concentrations 1989 to Present**

B = Compound is also detected in the blank. J = Result is detected below the reporting limit or is an estimated concentration.  
 Q = The reporting limit was elevated due to high analyte levels Wa = Post digestion spike recovery fell between 40-85% due to matrix interference  
 U = The MDL was raised to accommodate the detection of constituents in blank < = Less than Reporting Limit D = Results were the result of a dilution

# Appendix G - Table 4 - Nutrient Data from USGS-12 and NRF-7 1989 to Present

Well Number	Date Sampled	NO2 + NO3		TKN	TOX	P as P	TOC
		NO2	as N				
NRF-7	09/10/91		380			154	400
NRF-7	01/08/92		390				600
NRF-7	03/10/92		440				500
NRF-7	05/14/92		420				200
NRF-7	07/08/92		460				100
NRF-7	09/18/92		500				800
NRF-7	12/09/92		540				100
NRF-7	04/09/93		470				500
NRF-7	06/10/93		480				200
NRF-7	09/14/93		530				100
NRF-7	11/03/93		530				100
NRF-7	03/15/94		470				200
NRF-7	06/13/94		430				100
NRF-7	09/12/94		460				100
NRF-7	11/04/94		460				100
NRF-7	03/17/95		380			10	700
NRF-7	06/09/95		450			10	400
NRF-7	09/14/95		500			10	200
NRF-7	11/08/95		430			50	300
NRF-7	01/16/96		480			10	800
NRF-7	03/19/96		480			10	300
NRF-7	06/10/96		500			30	100
NRF-7	09/03/96		470			20	500
NRF-7	01/31/97	10	450			50	200
NRF-7	06/05/97	10	720	A	500	8	1000
NRF-7	09/02/97	10	680	A	500	30	1000
NRF-7	11/18/97	10	440	A	500	30	310
NRF-7	02/09/98	3	590	A	94	30	1000
NRF-7	05/11/98	2	470	A	180		1000
NRF-7	08/05/98	10	470	A	500	30	1000
NRF-7	11/02/98	10	450	A	500	30	1000
NRF-7	02/04/99	10	530	A	110	30	1000
NRF-7	05/03/99	330	660	A	500	30	1000
NRF-7	07/27/99	10	470	A	120	30	1000
NRF-7	11/01/99	10	470	A	500	30	1000
USGS-12	06/15/90		1600		20		300
USGS-12	08/06/90	10	1600				300
USGS-12	10/10/90	10	1700				400
USGS-12	12/11/90	10	1800				700
USGS-12	02/07/91	20	1700				300
USGS-12	04/11/91	10	1700				600
USGS-12	06/10/91	10	1800				400
USGS-12	09/06/91	10	1700				400
USGS-12	12/05/91	10	1800				500
USGS-12	03/12/92	10	1900				400
USGS-12	06/19/92	10	2000				300
USGS-12	09/18/92	10	950				400
USGS-12	12/01/92	20	2000				400
USGS-12	04/13/93	10	2000				400
USGS-12	06/14/93	10	2100				600
USGS-12	09/16/93	10	2000				1700
USGS-12	11/05/93	10	2000				400
USGS-12	03/11/94	10	2200				400
USGS-12	06/10/94	10	2100				400
USGS-12	09/09/94	10	2000				400
USGS-12	10/27/94	10	2000				500
USGS-12	03/20/95	10	2100			10	14000
USGS-12	06/14/95	10	2100			30	1100
USGS-12	09/12/95	10	2100			20	400
USGS-12	11/02/95	10	2000			70	500
USGS-12	01/16/96	100	2200			10	1700
USGS-12	03/21/96	10	2100			30	800
USGS-12	06/10/96	10	2200			10	2000
USGS-12	09/03/96	4	2000			30	1900
USGS-12	02/04/97	100	1800			50	400

Appendix G - Table 4 - Nutrient Data from USGS-12 and NRF-7 1989 to Present

Well	Date	NO2 + NO3									
Number	Sampled	NO2	as N	TKN	TOX	P as P	TOC				
USGS-12	06/09/97	10	2200	^	500	30	170	J	500		
USGS-12	09/03/97	10	2000	^	500	6	27	J	320		
USGS-12	11/18/97	4	1800	^	500	30	35		3600		
USGS-12	02/11/98	10	1600	^	500	30	USJ	5	<	1000	
USGS-12	05/12/98	1	1400	u	270	30	J	22	J	440	
USGS-12	08/04/98	10	1300	^	500	55	J	32	<	1000	
USGS-12	11/04/98	10	1500	^	500	48	J	25	J	320	
USGS-12	02/11/99	3	1100	^	500	30	J	48	<	1000	
USGS-12	05/05/99	10	1000	u	330	30	<	50	<	1000	
USGS-12	07/29/99	8	950	u	200	30		53	J	640	
USGS-12	11/03/99	10	820	u	120	30		41	<	1000	
	Mean	19.11	1183.82		382.91	29.39		37.39		812.24	
	Std. Dev.	47.45	706.66		165.95	10.06		38.68		1625.93	
	Max	330.00	2200.00		500.00	55.00		170.00		14000.00	
	Min	1.10	380.00		94.00	5.60		4.90		100.00	

## **Table 5**

### **Radionuclides Concentrations 1989 - Present**

**Appendix G - Table 5 - Radionuclide Data from USGS-12 and NRF-7 1989 to Present**

Well Number	Date Sampled	(2s) Total Error	(2s) Total Error	(2s) Total Error	(2s) Total Error	(2s) Total Error	(2s) Total Error	(2s) Total Error	(2s) Total Error	(2s) Total Error	(2s) Total Error
		Sr-90	Cs-137	Gross Alpha	Gross Beta	Tritium (H-3)					
NRF-7	09/10/91										
NRF-7	01/08/92			1.29	0.31	3.23	0.47				
NRF-7	03/10/92			0.7	0.21	3.36	0.42				
NRF-7	05/14/92			1.03	0.28	3.5	0.42				
NRF-7	07/08/92			1.48	0.37	2.86	0.37				
NRF-7	09/18/92										
NRF-7	12/09/92										
NRF-7	04/09/93			1.33	0.60	3.16	1.04				
NRF-7	06/10/93			1.99	1.00	2.71	0.92				
NRF-7	09/14/93			0.935	0.74	3.29	0.80				
NRF-7	11/03/93			1.37	0.83	3.29	0.79				
NRF-7	03/15/94			1.52	0.87	2.82	0.74				
NRF-7	06/13/94			1.14	0.80	2.96	0.76				
NRF-7	09/12/94			1.85	0.94	2.78	0.93	3.2	26		
NRF-7	11/04/94			5.41	2.24	6.89	2.08	-16	26		
NRF-7	03/17/95			2.35	1.45	7.61	2.52	-9.6	26		
NRF-7	06/09/95			2.55	1.68	6.46	2.67	-16	26		
NRF-7	09/14/95			1.24	0.78	4.13	1.21	-6.4	26		
NRF-7	11/08/95			1.84	1.02	3.3	0.85	9.6	26		
NRF-7	01/16/96			0.78	0.77	4.4	1.28	12.8	26		
NRF-7	03/19/96			1.69	1.90	7.3	2.31	0	26		
NRF-7	06/10/96			1.54	1.61	6.83	2.37	-12.8	26		
NRF-7	09/03/96			1.41	1.53	5.68	1.77	12.8	26		
NRF-7	01/31/97	0.72	2.6	-0.552	3.8	0.881	0.49	3.62	1.20	0.158	7
NRF-7	06/05/97	0.34	0.4	0.363	3.2	1.15	0.64	3.29	1.30	-29.2	200
NRF-7	09/02/97	0.09	0.3	1.67	1.4	1.27	0.66	3.97	1.40	3.98	7
NRF-7	11/18/97			0.197	0.7	1.83	0.95	4.51	1.20	3	7
NRF-7	02/09/98	0.27	0.3	0.482	0.7	1.56	0.66	4.5	1.00	3.19	6
NRF-7	05/11/98	0.02	0.2	0.318	0.5	1.68	0.60	3.97	0.69	2	7
NRF-7	08/05/98			0.166	0.5	1.2	0.52	4.64	1.10		
NRF-7	11/02/98	0.23	0.3	0.079	0.4	1.96	1.10	4.07	1.30	7.19	7
NRF-7	02/04/99	0.11	0.2	-0.41	0.7	1.77	0.57	4.1	0.68	15.65	3
NRF-7	05/03/99	0.00	0.2	0.101	0.6	1.72	1.00	4.18	0.88	38.28	7
NRF-7	07/27/99	0.00	0.2	0.248	0.7	1.68	1.00	1.73	0.64	8.69	2
NRF-7	11/01/99	0.26	0.3	-0.00582	0.7	1.11	0.89	4.64	1.10	3.57	NA
USGS-12	06/15/90										
USGS-12	08/06/90										
USGS-12	10/10/90										
USGS-12	12/11/90										
USGS-12	02/07/91										
USGS-12	04/11/91										
USGS-12	06/10/91										
USGS-12	09/06/91										
USGS-12	12/05/91										
USGS-12	03/12/92			2.61	0.43	2.89	0.47				
USGS-12	06/19/92			2.32	0.38	2.27	0.39				
USGS-12	09/18/92										
USGS-12	12/01/92										
USGS-12	04/13/93			2.29	0.87	2.09	0.81				
USGS-12	06/14/93			3.24	1.63	2.81	0.93				
USGS-12	09/16/93			3.85	1.99	2.85	0.87				
USGS-12	11/05/93			3.33	1.83	3.05	1.59				
USGS-12	03/11/94			3.25	1.70	2.16	0.75				
USGS-12	06/10/94			3.33	1.74	2.63	0.87				
USGS-12	09/09/94			3.21	1.60	2.62	0.82	32	32		
USGS-12	10/27/94			4.13	3.56	3.54	2.74	86.4	26		
USGS-12	03/20/95			1.85	3.72	2.19	6.57				26



**Appendix G - Table 5 - Radionuclide Data from USGS-12 and NRF-7 1989 to Present**

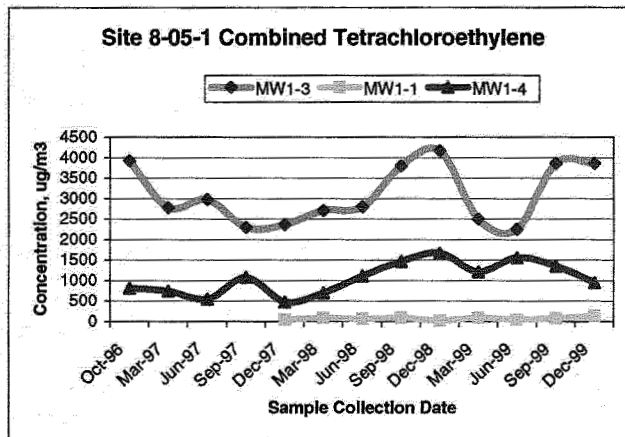
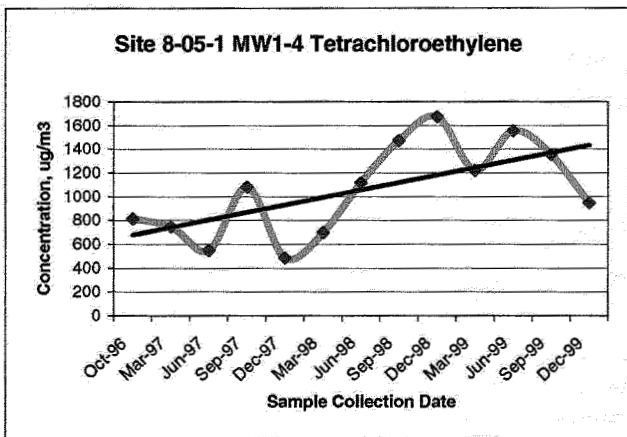
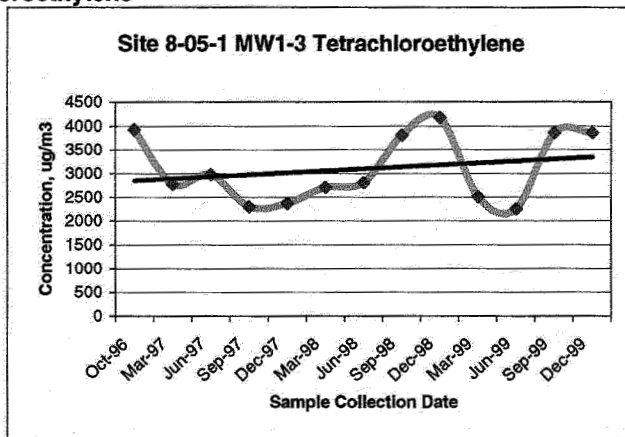
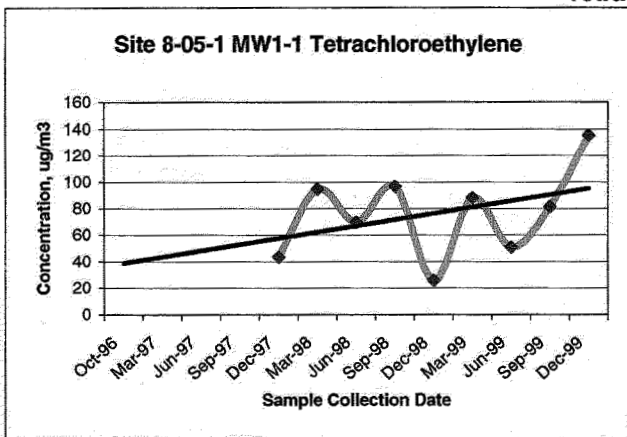
Well	Date		(2s)		(2s)		(2s)		(2s)		(2s)
Number	Sampled	Sr-90	Total Error	Cs-137	Total Error	Gross Alpha	Total Error	Gross Beta	Total Error	Tritium (H-3)	Total Error
USGS-12	06/14/95					2.63	2.46	6.2	3.90	64	26
USGS-12	09/12/95					2.56	1.51	4.24	1.21	35	26
USGS-12	11/02/95					2.99	1.68	4.92	1.55	38	26
USGS-12	01/16/96					4.18	2.12	4.29	1.41	60.8	26
USGS-12	03/21/96					1.69	2.12	7.45	3.61	64	26
USGS-12	06/10/96					0.32	1.61	6.71	4.48	60.8	26
USGS-12	09/03/96					2.52	2.48	7.02	4.25	48	26
USGS-12	02/04/97	0.19	0.3	0.379	3.3	1.43	1.20	2.38	1.60	62.4	11
USGS-12	06/09/97	0.27	0.6	-4.59	3.7	0	0.16	1.2	1.00		13
USGS-12	09/03/97	0.29	0.3	1.01	1.4	1.21	1.00	1.79	1.20	51.3	10
USGS-12	11/18/97			0.515	1.1	3.01	1.60	2.77	0.98	63.2	11
USGS-12	02/11/98	0.03	0.4	-0.174	0.7	2.77	1.10	3.93	0.71	59.4	10
USGS-12	05/12/98	0.08	0.2	0.205	0.5	2.2	0.95	0.699	0.41	57.3	10
USGS-12	08/04/98	0.06	0.2	0.137	0.6	2.3	0.64	3.46	0.66		16
USGS-12	11/04/98	0.16	0.2	-0.00859	0.4	1.29	0.89	2.88	0.66	69.2	1
USGS-12	02/11/99	0.17	0.2	0.291	0.7	3.36	1.20	3.36	1.20	81.88	16
USGS-12	05/05/99	0.00	0.3	0.105	0.7	3.76	2.00	2.2	0.75		53
USGS-12	07/29/99	0.17	0.2	0.0098	0.7	1.71	1.30	3.31	0.92	74.94	11
USGS-12	11/03/99	-0.01	0.2	0.443	0.7	2.11	1.60	3.42	1.00	61.63	9
	Mean	0.16	0.3	0.04	0.8	2.04	0.7	3.79	0.9	28.32	18.6
	Std. Dev.	0.17		1.08		1.02		1.59		32.44	
	Max	0.72		1.67		5.41		7.61		86.40	
	Min	-0.01		-4.59		0.00		0.70		-29.20	

# **Appendix H**

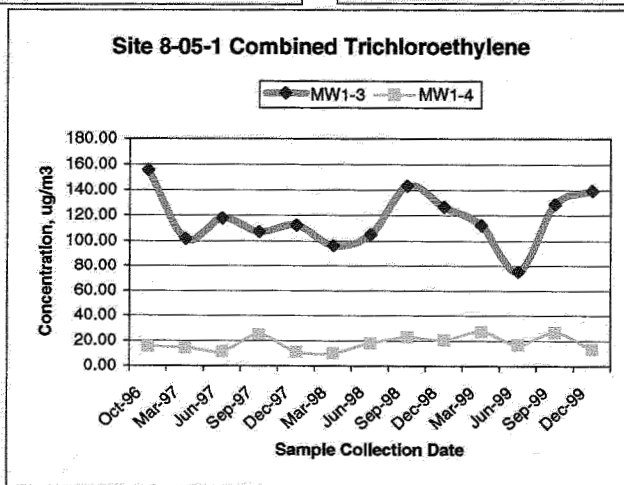
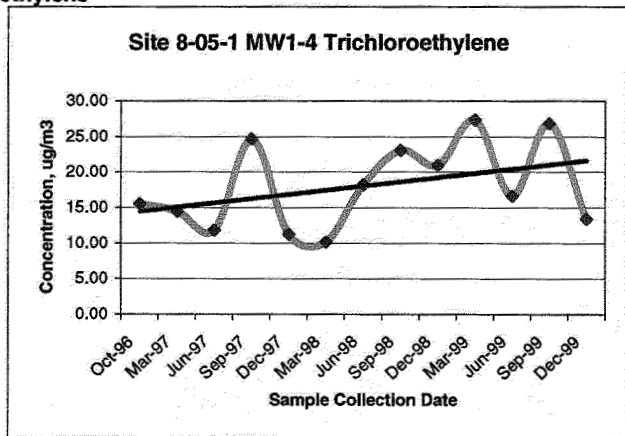
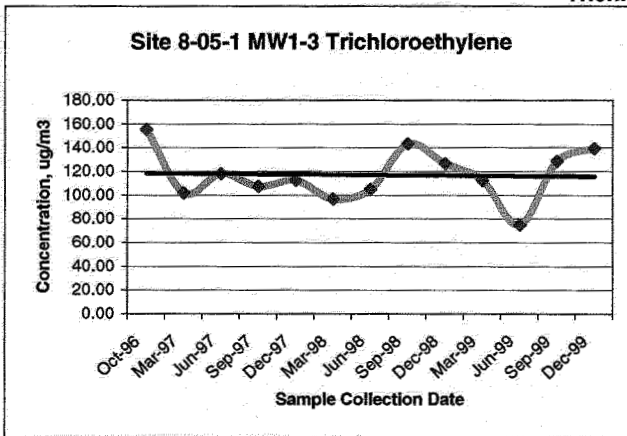
## **Soil Gas Charts**

# Site 8-05-1 Charts

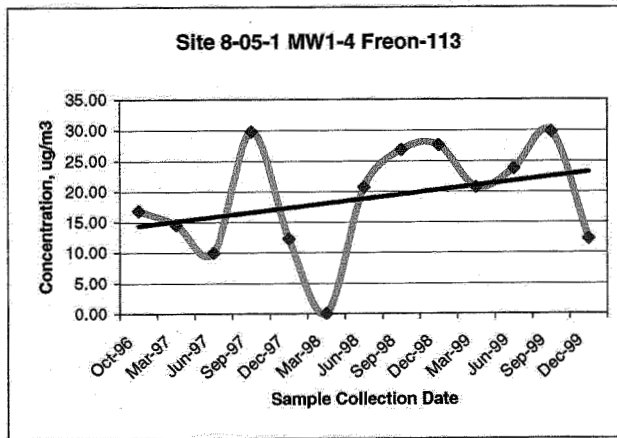
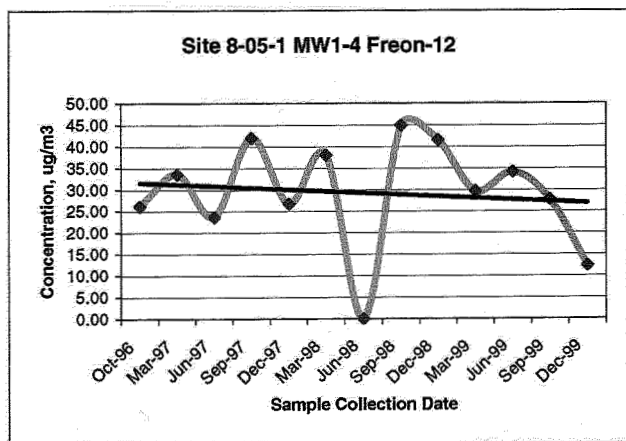
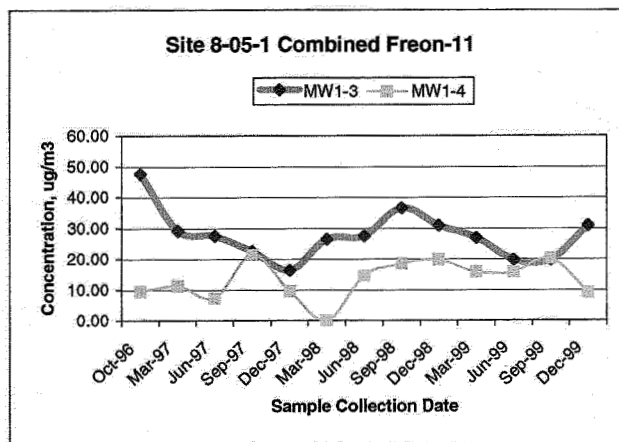
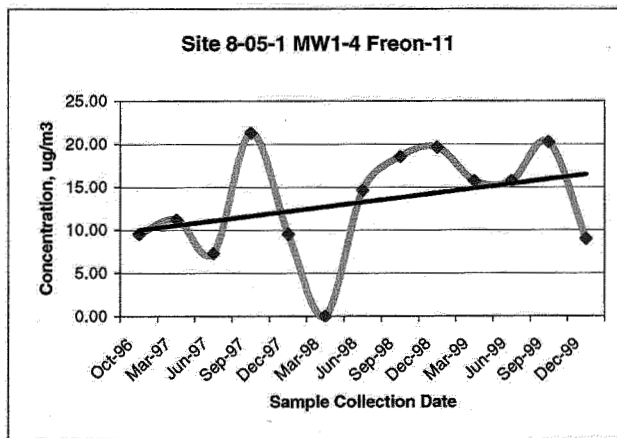
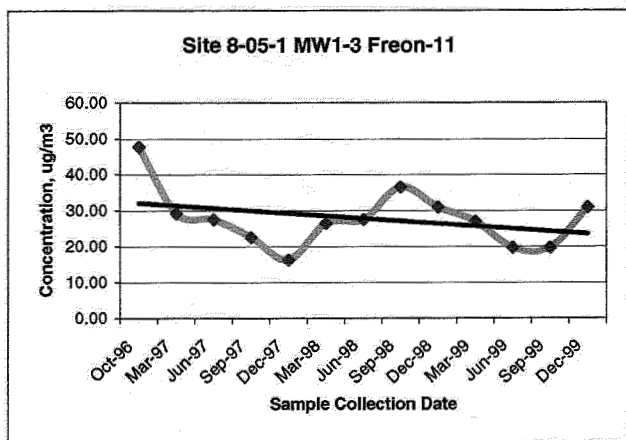
## Tetrachloroethylene



## Trichloroethylene

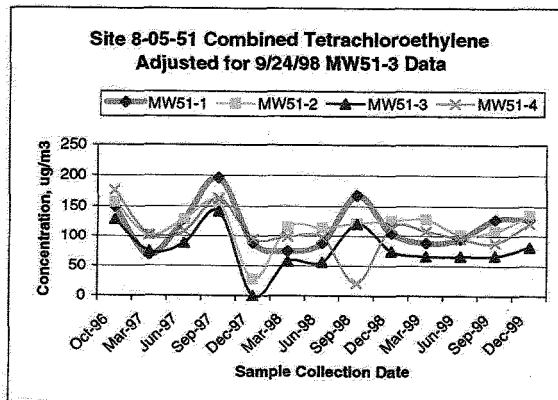
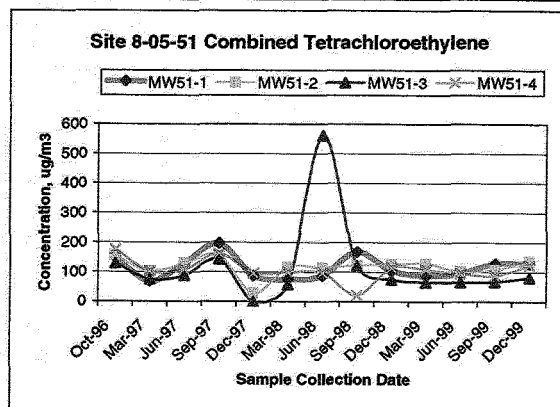
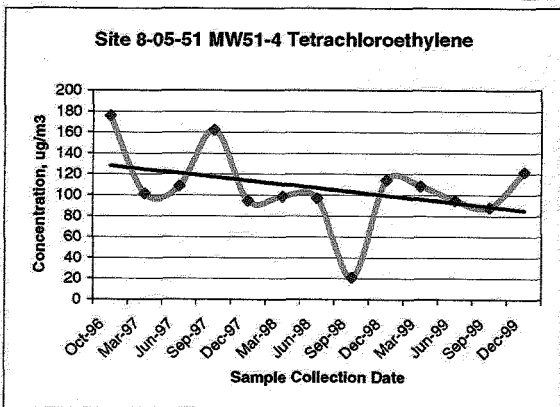
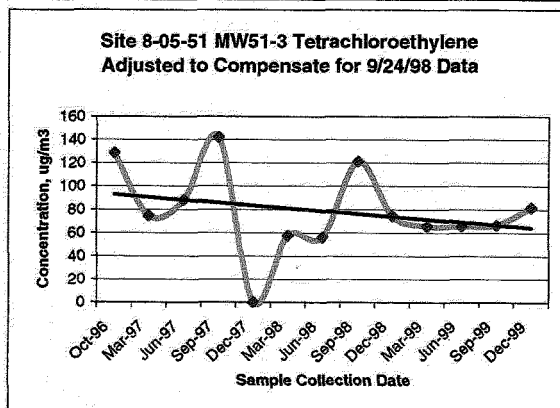
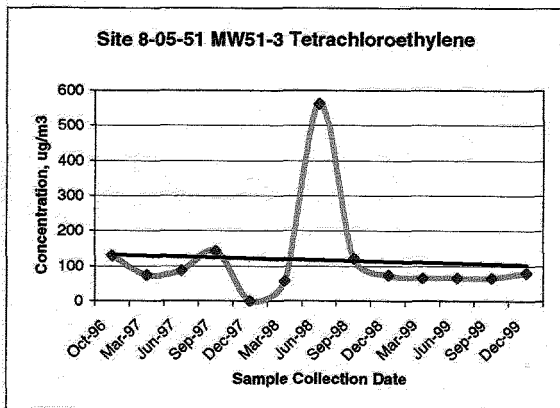
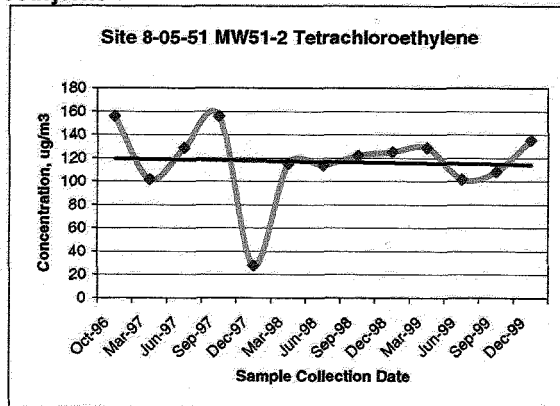
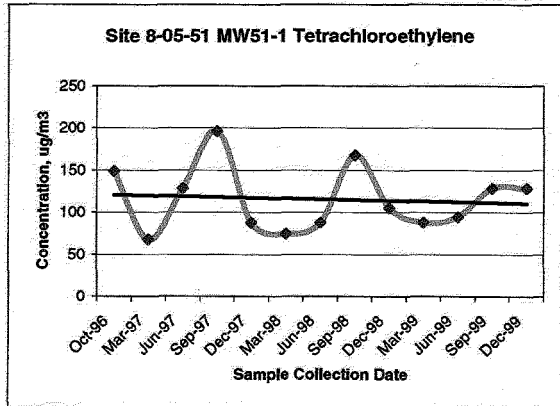


**Site 8-05-1 Charts (continued)  
Freon 11 Charts**



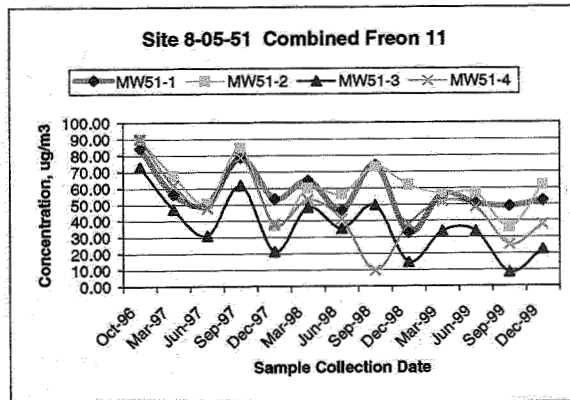
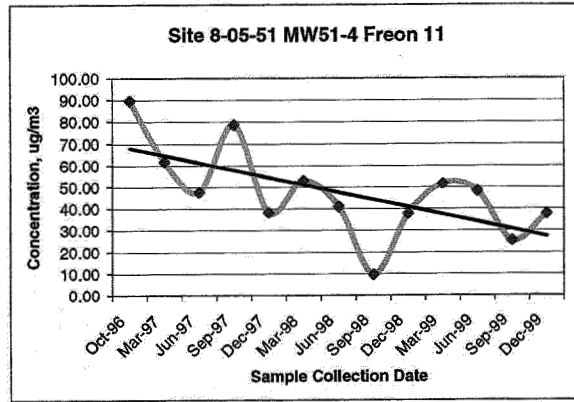
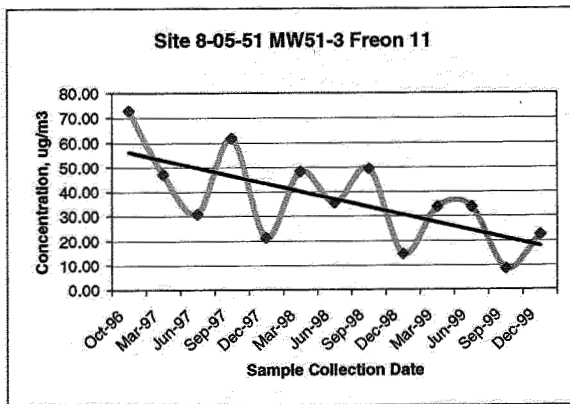
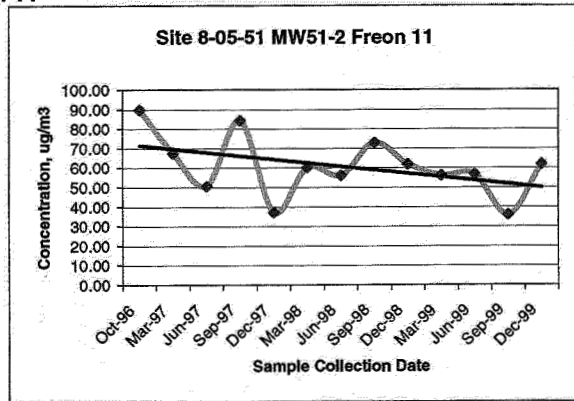
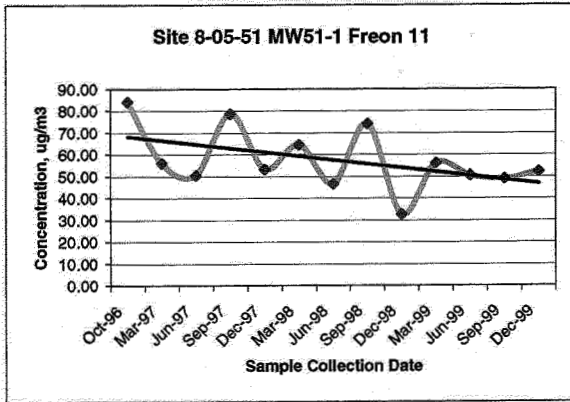
## Site 8-05-51 Charts

### Tetrachloroethylene



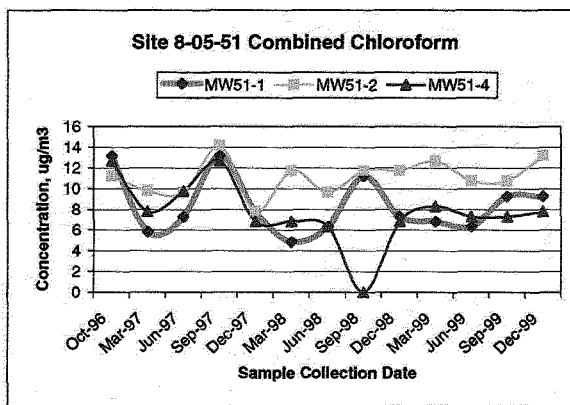
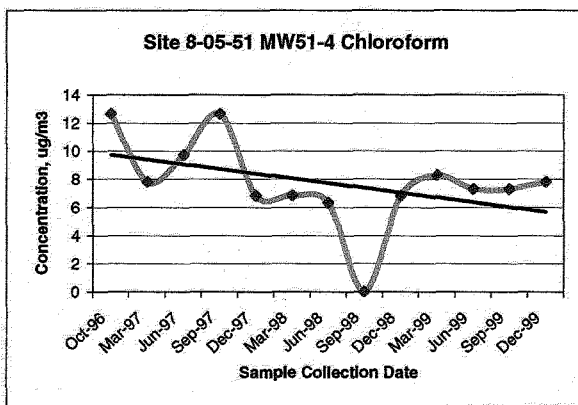
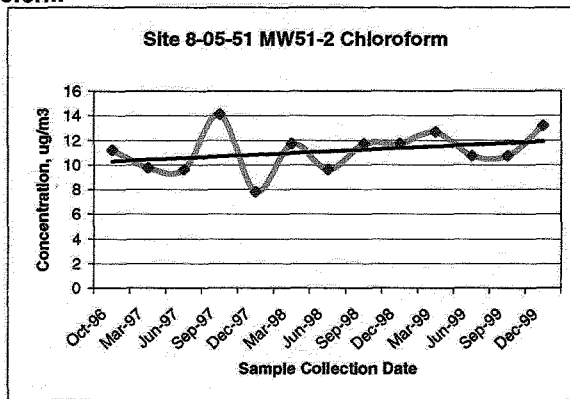
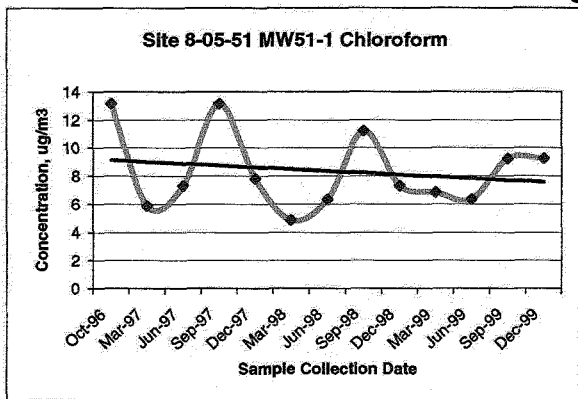
# Site 8-05-51 Charts (continued)

## Freon 11



# Site 8-05-51 Charts (continued)

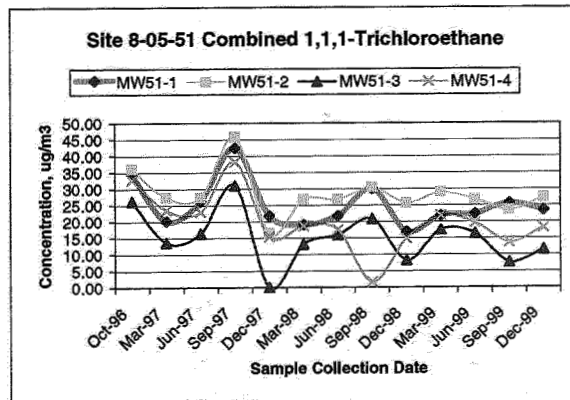
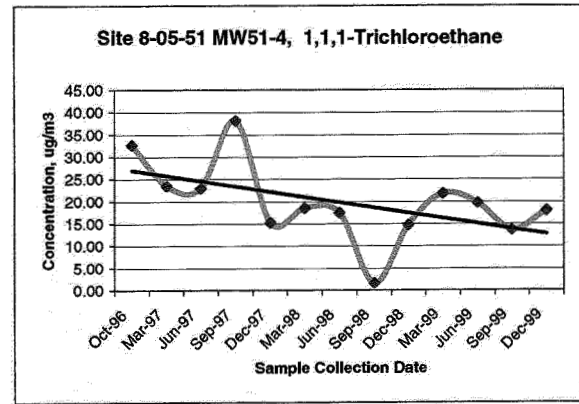
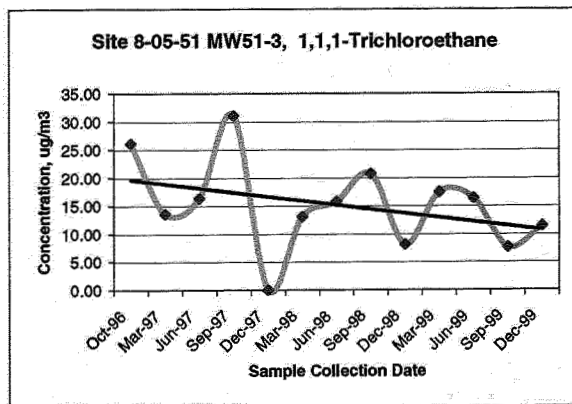
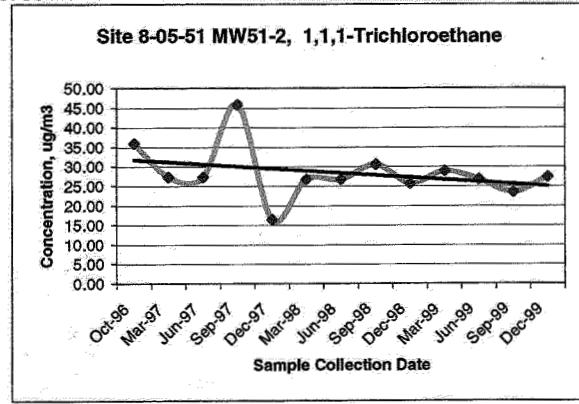
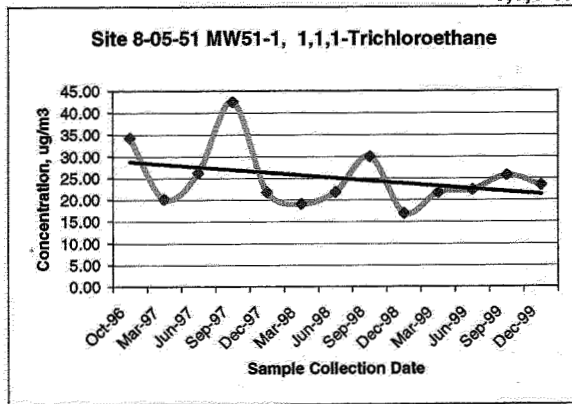
## Chloroform



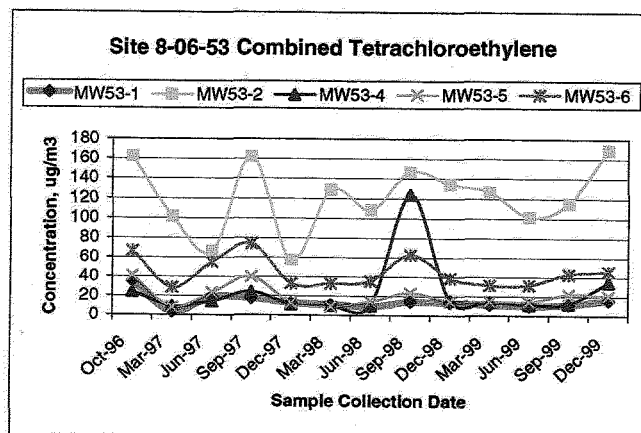
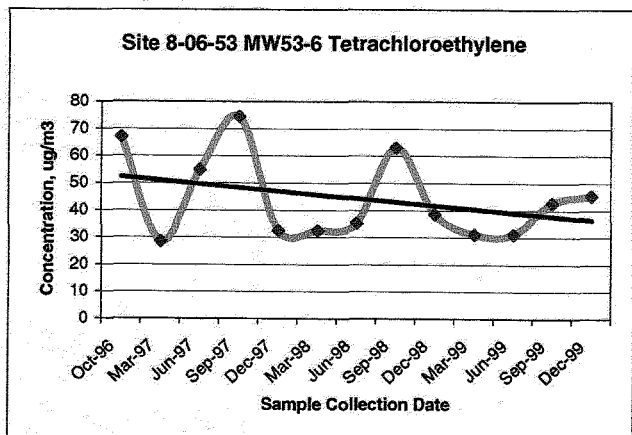
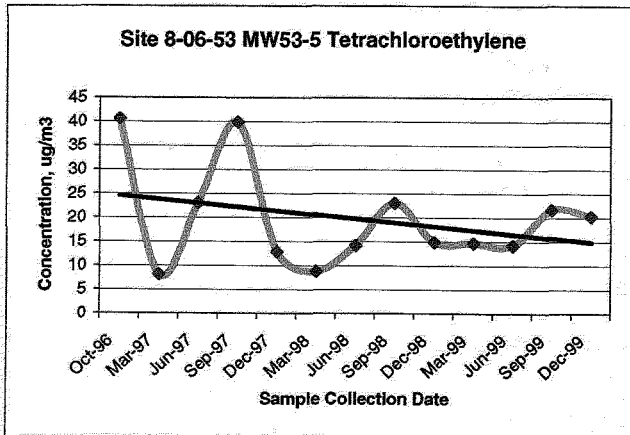
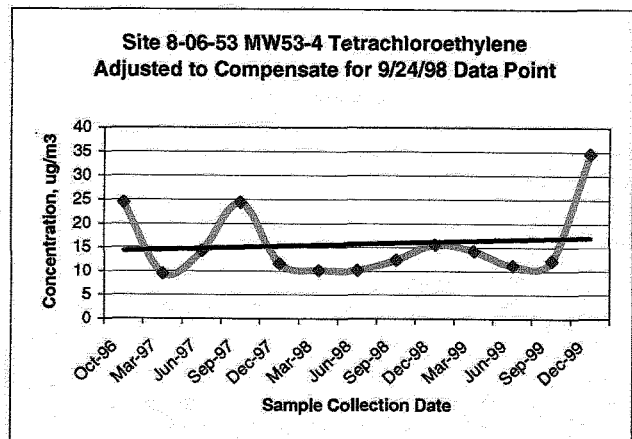
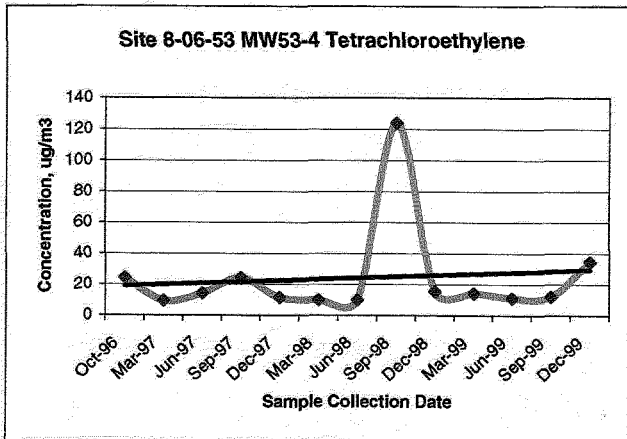
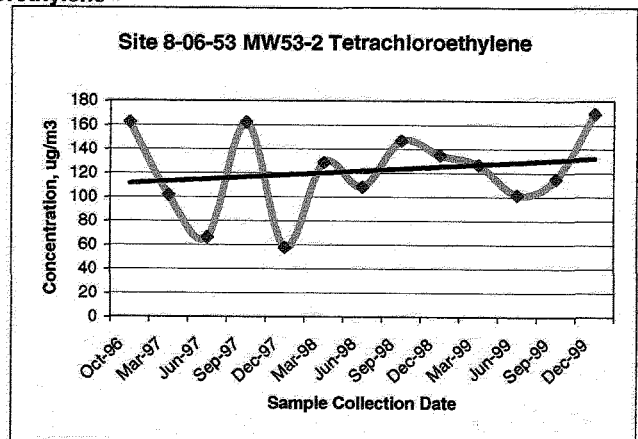
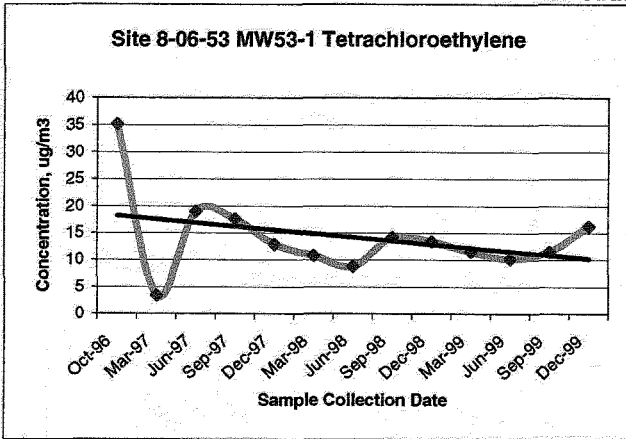


# Site 8-05-51 Charts (continued)

## 1,1,1-Trichloroethane

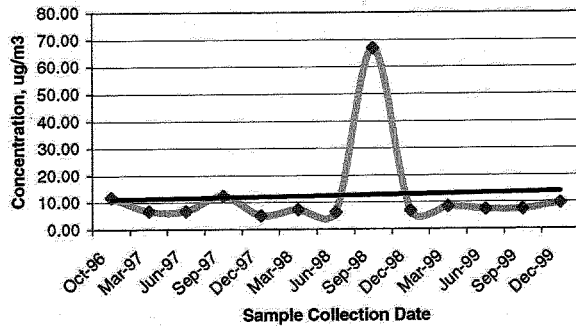


**Site 8-06-53 Charts  
Tetrachlorethylene**

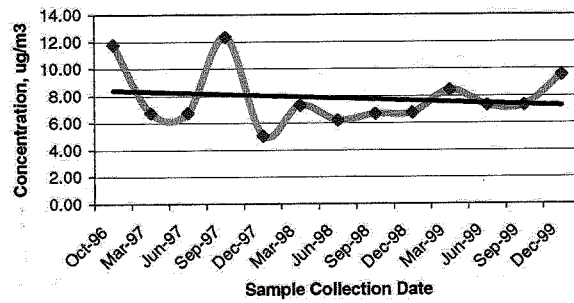


**Site 8-06-53 Charts (continued)**  
**Freon 11**

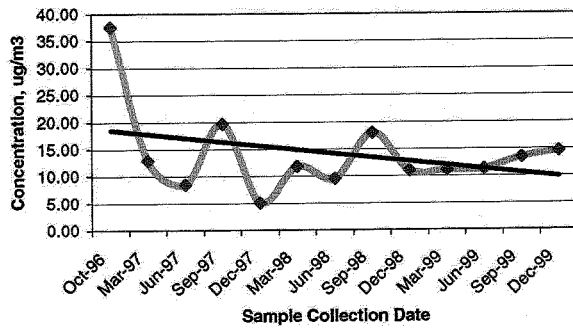
**Site 8-06-53 MW53-4 Freon 11**



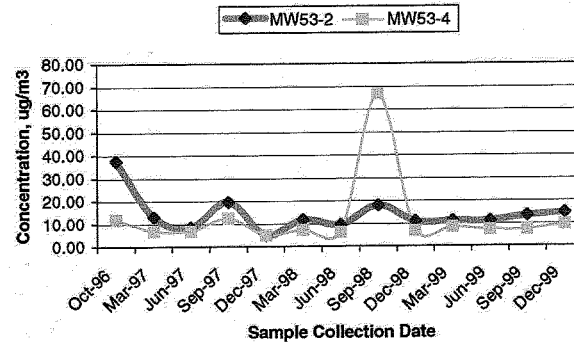
**Site 8-06-53 MW53-4 Freon 11 Adjusted to Compensate for 9/24/98 Data Point**



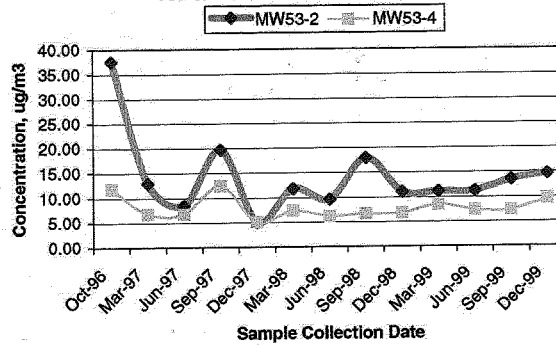
**Site 8-06-53 MW53-2 Freon 11**



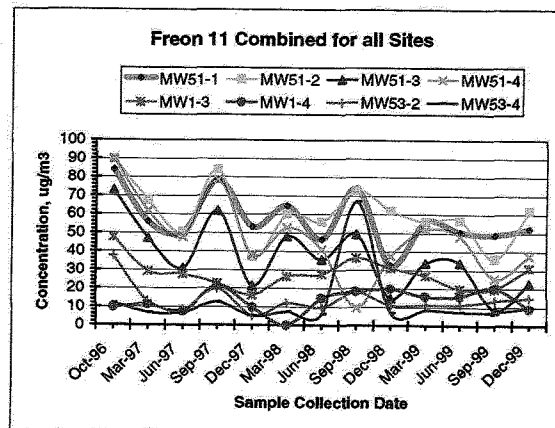
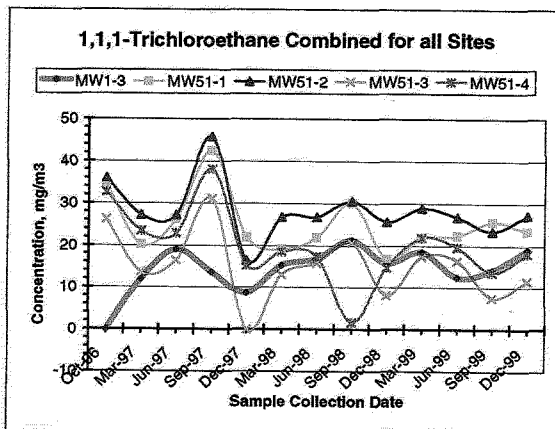
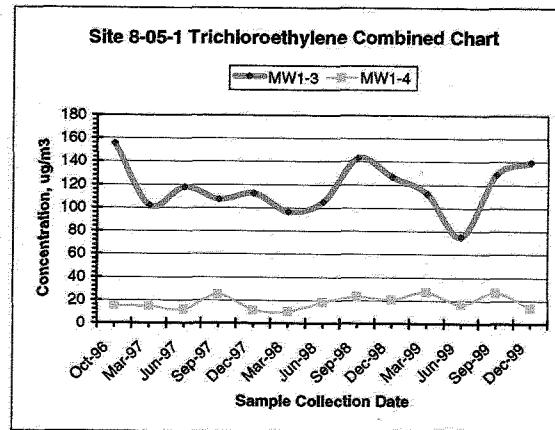
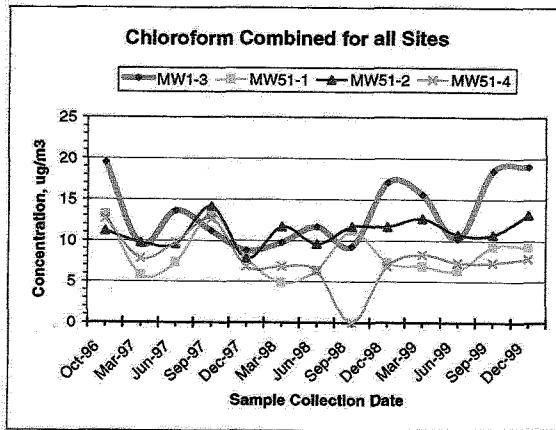
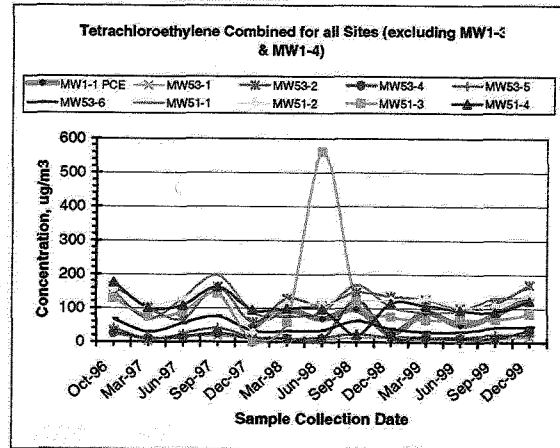
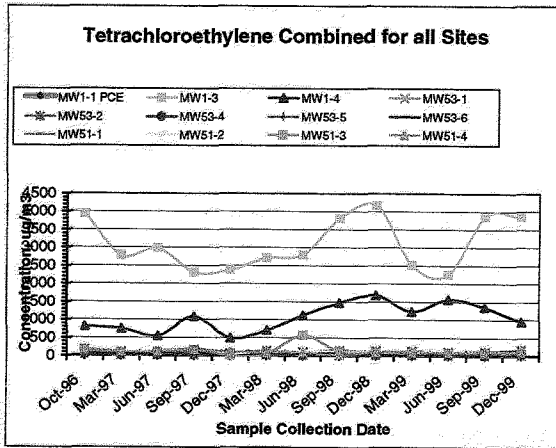
**Site 8-06-53 Combined Freon 11**



**Site 8-06-53 Combined Freon 11 with Adjusted for 9/24/98 MW53-4 Data**



# Combined Charts for Various Constituents



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